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CONFERENCE TO ESTABLISH GUIDELINES FOR RESEARCH IN OFFICE EDUCATION.

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A RESEARCH CONFERENCE WAS HELD TO ESTABLISH GUIDELINES AND PRIORITIES FOR NEEDED RESEARCH IN OFFICE EDUCATION. CONFERENCE LEADERS, SPEAKERS, AND PARTICIPANTS WERE DRAWN FROM STATE SUPERVISORS OF VOCATIONAL EDUCATION, RESEARCH ASSISTANTS IN VOCATIONAL EDUCATION, TEACHERS SPECIALIZING IN BUSINESS EDUCATION, BUSINESS MANAGERS, LABOR LEADERS, AND MEMBERS OF THE U.S. OFFICE OF EDUCATION. THREE WORKING GROUPS WERE FORMED--A BUSINESS EDUCATION GROUP, A MANAGEMENT GROUP, AND A LABOR GROUP. EACH GROUP DEVELOPED A LIST OF NEEDED RESEARCH ACTIVITIES IN ITS RESPECTIVE AREA, GAVE PRIORITIES TO THESE RESEARCH NEEDS, AND DEVELOPED PRELIMINARY GUIDELINES FOR THE UTILIZATION OF THE RESEARCH. (GC)

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FINAL REPORT

Project No. 5-1202

Grant No. OEG-1-6-051202-1092

CONFERENCE TO ESTABLISH GUIDELINES FOR RESEARCH IN OFFICE EDUCATION

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education
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August 1966

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

Conference to Establish Guidelines for Research in Office Education

Project No. 5-1202
Grant No. OEC-1-6-051202-1092

Dr. J. E. Gratz

August 1966

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Shippensburg State College

Shippensburg, Pennsylvania

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I. INTRODUCTION

Statement of the Problem

The problem is to determine what is needed in research in the area of office education and to establish priorities and guidelines for this research.

Once it has been established what is needed in research in office education and the priorities and guidelines have been established, then this information must be disseminated throughout the country. In this manner, other colleges and universities will learn what research is needed in the area of office education and will also have the guidelines to direct them in this research.

In addition, it is believed that national dissemination should be given regarding the opportunities for research under the Vocational Education Act of 1963 and other Office of Education sponsored programs.

Objectives

The main objective of this project will be to determine what is needed in research in the area of office education, and then to establish priorities and guidelines for this research.

As an outcome of this primary objective, the question as to how utilization of research in office education can best be accomplished should be answered.

An explanation of research opportunities under the Vocational Education Act of 1963 and other Office of Education supported programs would be an outcome of this project.

All of these objectives would be limited in scope if it were not for the proposal to disseminate this information nationally.

Through this project, we should accomplish the following on a national basis:

1. Research needed in office education.

2. Priorities for this research.

3. Guidelines for this research.

4. Utilization of this research.

5. Opportunities for research under the Vocational Education Act of 1963 and other Office of Education supported programs.

6. The meeting of key individuals in labor, management, and the office of education who will have had an opportunity to sit down together in work groups to better understand the problems involved in training for office education.

7. Dissemination of this information on a national basis.

II. METHOD

A research conference in the area of office education was held at Shippensburg State College for a period of one week to establish guidelines and priorities for needed research in office education. During the period of this project, authorities in the fields of business education, management, and labor met in work groups to establish research guidelines and research utilization on the questions and objectives proposed for this project.

Conference leaders, speakers, and participants were drawn from state supervisors of vocational education, research assistants in vocational education on the state level, teacher education institutions specializing in business education, top management representatives, key individuals from labor, both state and national, and key members of the U. S. Office of Education.

This project was a work, action-oriented program with definite proposals for research, priorities and guidelines for research, and utilization of this research in office education distributed on a national basis. In addition, information concerning the Vocational Education Act of 1963 and other Office of Education supported programs will be disseminated.

The conference leaders and participants met in three different work groups--a business education group, a management group, and a labor group. These groups approached the needed research in office education from their own individual view-point. Each group developed a list of needed research in its respective area, gave priorities to these research needs, and then worked on guidelines for this research. Finally, the individual groups developed ideas for the utilization of this research. A list of the conference leaders and participants is found in Appendix N.

It must be understood that the various work groups could not, in the time allotted, develop guidelines for all the needed research. Each group went as far as it could within the available time. It is hoped that graduate students, graduate schools, and other interested institutions will continue the research.

Appendix A reports the address of Mr. Elmer Schick of the U. S. Office of Education, which gave the conference leaders and participants the viewpoint of the U. S. Office on "Research Opportunities."

Appendix B reports a panel discussion, "Critique of Research Completed in Office Education." Dr. Charles Hicks of Ohio State University, Dr. James Crews of the University of Florida, and Dr. Fred Cook of Wayne State University were the panel members.

Appendixes C through M give the guidelines for research as developed by the work groups in business education, management, and labor.

Following the close of this project, the research needs in office education, the guidelines for this research, utilization of the research, and possibilities for research under the Office of Education supported programs will be published and distributed on a national basis.

III. RESULTS

NEEDED RESEARCH IN OFFICE EDUCATION

(Business Education Work Group)

Approximately seventeen persons participated in the discussion of needed research in office education as seen by the business teacher educator. This group divided the research needs into two sections:

1. Research relating to the office worker
2. Research relating to office teacher education

All participants in this discussion were aware that their own background of experience and their individual interests influenced the research topics listed and the allocation of priority to each topic. It should be noted, therefore, that the lists of topics which evolved from this group for this conference do not imply directly or otherwise any notion of completeness or finality.

1. A study to determine whether work experience is of sufficient value to be required in the certification of teachers of business and office occupations.
2. A study to determine whether data processing is of sufficient value to be required in the certification of teachers of business and office occupations. (It is anticipated that this question may be raised about any of the required elements of a current business teacher education program.)
3. A study to determine the in-service training needs of business education teachers to keep them abreast of technological changes in the office.
4. A study to determine the optimum time allocation in the utilization of instructional devices (such as tapes in the teaching of shorthand) in the preparation of business teachers.
5. A study to determine the preparation needed by new-media technicians to support the classroom teacher.
6. A study to determine if a teacher-coordinator needs to have preparation that differs from that of a regular classroom teacher.

7. A study to determine the criteria for the selection of multi-sensory teaching devices on which prospective business teachers would be expected to have competency.

8. A study to determine the criteria for the selection of equipment on which prospective business teachers would be expected to have competency.

9. A study to determine the current status of the supply of and demand for business teachers with projections for the next decade.

10. A study to determine the criteria to be used in the selection of high school cooperating teachers for the student teaching program.

11. A study of the knowledge and skills in data processing needed by office occupation students.

12. A study to identify and analyze entry office jobs available for high school "leavers."

13. A study of communication knowledges and skills needed by office workers.

14. A study of office machines knowledges and skills needed for initial office employment.

15. A study to identify how office occupational choices are made.

16. A study of competencies needed for initial employment.

17. A study of office duties and responsibilities in new and emerging occupations.

18. A study of the optimum time needed for teaching the required knowledges and skills for initial office employment.

19. A study of office job opportunities for students with special needs.

20. A study to identify and prepare students with special needs for office employment.

21. A study to determine business traits and attitudes required for success in office occupations.

22. A study to determine the best recording system for secretaries.

23. A study to determine the best system of recording office communications.

24. A study to determine if office work experience is needed to be a successful office employee.

25. A study to determine the technical and administrative knowledges and concepts needed for the changing world of work in the office.

26. A study to follow-up in depth of school "leavers."

27. A study to develop educational experiences within the curriculum that will stimulate and encourage school "leavers" to continue their education after initial employment.

28. A study to determine the effectiveness of "funded" training programs for the preparation of 16 to 21 year-old youth for entry into clerical occupations as compared with similar programs in comprehensive public secondary schools.

29. A study to determine how effective is the school in the placement and follow-up of school "leavers."

RESEARCH PRIORITIES

(Business Education Work Group)

The items included in the needed research listwere given rank order of importance by the business education work group.

I. RESEARCH RELATING TO THE OFFICE WORKER

RANK	ITEM
1	A study of the knowledge and skills in data processing needed by office occupation students.
3	A study of communication knowledges and skills needed by office workers.
3	A study of competencies needed for initial employment.
3	A study of office duties and responsibilities in new and emerging occupations.
5	A study to identify and analyze entry office jobs available for high school "leavers."
6	A study to determine if office work experience is needed to be a successful office employee.
7	A study to determine the technical and administrative knowledges and concepts needed for the changing world of work in the office.
9	A study of office machines knowledges and skills needed for initial office employment.
9	A study of business traits and attitudes required for success in office occupations.
9	A study to determine the effectiveness of "funded" training programs for the preparation of 16 to 21 year-old youth for entry into clerical occupations as compared with similar programs in comprehensive public secondary schools.
11	A study to determine the identification and preparation of students with special needs for office employment.
12	A study to determine office job opportunities for students with special needs.
13	A study to determine the optimum time needed for teaching the required knowledges and skills for initial office employment.

RANK	ITEM
14	A study to identify how office occupational choices are made.
15.5	A study to follow-up in depth the school "leavers."
15.5	A study to develop educational experiences within the curriculum that will stimulate and encourage school "leavers" to continue their education after initial employment.
17	A study to determine how effective is the school in the placement and follow-up of school "leavers."
18	A study to determine the best system of recording office communications.
19	A study to determine the best recording system for secretaries.

II. RESEARCH RELATING TO OFFICE TEACHER EDUCATION

RANK	ITEM
1	A study to determine whether work experience is of sufficient value to be required in the certification of teachers of business and office occupations.
2	A study to determine the in-service training needs of business education teachers to keep them abreast of technological changes in the office.
3	A study to determine whether data processing is of sufficient value to be required in the certification of teachers of business and office occupations. (It is anticipated that this question may be raised about any of the required elements of a current business teacher education program.)
4.5	A study to determine the criteria for the selection of equipment on which prospective business teachers would be expected to have competency.
4.5	A study to determine the current status of the supply of and demand for business teachers with projections for the next decade.
6.5	A study to determine if a teacher-coordinator needs to have preparation that differs from that of a regular classroom teacher.
6.5	A study to determine the criteria to be used in the selection of high school cooperating teachers for the student teaching program.

RANK	ITEM
8	A study to determine the optimum time allocation in the utilization of instructional devices (such as tapes in the teaching of shorthand) in the preparation of business teachers.
9	A study to determine the criteria for the selection of multisensory teaching devices on which prospective business teachers would be expected to have competency.
10	A study to determine the preparation needed by new-media technicians to support the classroom teacher.

See Appendixes C, D, and E for guidelines developed by the Business Education work group.

NEEDED RESEARCH IN OFFICE EDUCATION

(Management Work Group)

The conference leaders and participants in management concluded that the following need to be researched in the area of office education from the viewpoint of management.

1. Depth analysis of office jobs

    a. Up-to-date or realistic
    b. Comprehensive
    c. Observation versus survey
    d. Automative operation versus manual operation

2. Educational preparation for change in office working situations

    a. Psychological
    b. Sociological
    c. Technological
    d. Economic
    e. Training

3. Educational changes for women to meet upgraded job opportunities

    a. Potential for initial jobs
    b. Potential for responsibility
    c. Potential for middle-management
    d. Potential for advancement

4. Establish procedure for informing student counselors as to present and future opportunities in office employment

    a. Procedures and understandings
    b. Changing attitudes
    c. Significance
    d. Motivation

5. Educational preparation of the disadvantaged for office occupations

    a. Motivation
    b. Attitudes
    c. Skills (varied levels)
    d. Transition from school to job

6. Joint pilot study in selected localities by employers and business teachers to determine mutually the performance standards for employability and suggest curriculum changes to meet the standards

7. Joint analysis by office educators and management as to the advantages and disadvantages of training generalists versus specialists for office employment

8. Research study to determine the impact of data processing for small and medium-sized offices

9. Identify and analyze job clusters and job hierarchy in office employment

10. Education for office information systems

11. Planned in-service training for advancement based on merit

12. Determine economic concepts that should be understood by office employees

    a. The "how's and why's" of business
    b. Significance of economic understanding

RESEARCH PRIORITIES

(Management Work Group)

From the preceding list, the management work group gave priorities to the needed research. Following is the list of the priorities given:

RANK	ITEM
1	Depth analysis of office jobs
2	Joint pilot study in selected localities by employers and business teachers to determine mutually the performance standards for employability and suggest curriculum changes to meet the standards

An analysis to provide teachers of business and office education with office standards that are in line with those needed for initial employment. These results can effect curriculum changes.

3	Educational preparation for change in office working situations

An experimental study in office situations (drastically affected by technology, reorganization, introduction of new products, etc.) to review management techniques and methods for helping office workers accept changes and as to the psychological, sociological, financial, and training effects. These findings would then be available to office educators to aid them in helping prepare future office workers for inevitable office changes.

4	Joint analysis by office educators and management as to the advantages and disadvantages of training generalists versus specialists for office employment
5	Educational changes for women to meet upgraded job opportunities

6 Identify and analyze job clusters and job hierarchy in office employment

7 Education for office information systems

8 Educational preparation of the disadvantaged for office occupations

9 Establish procedures for informing student counselors as to present and future opportunities in office employment

10 Determine the impact of data processing on small and medium-sized offices

11 Planned in-service training for advancement based on merit

12 Determine economic concepts that should be understood by office employees

See Appendix M for guideline developed by the management work group.

NEEDED RESEARCH IN OFFICE EDUCATION

(Labor Work Group)

The conference leaders and participants in labor decided that the following needed to be researched in the area of office education:

1. LABOR RELATIONS

   a. Research to determine status of labor relations instruction and understanding in office education.

   b. Extent and nature of unionization in office education.

   c. Research on standards for acceptance into labor organizations.

   d. Research to determine what office education instructors should know about labor relations as it relates to office education. (Suggested establishing a Labor Relations Seminar.)

2. OFFICE OCCUPATIONS AND TRAINING

   a. Definitions and list of office occupations, skills, attitudes, aptitudes necessary.

   b. Training Programs - Analysis of labor market adaptation and relationship to training programs in office education.

   c. Classification of areas of competency for office workers now in labor market and future industrial needs.

   d. Research on information and studies now available in office education.

      1. Labor supply and demand studies
      2. Skill studies
      3. Unionization studies

      (This should take the form of an annotated bibliography.)

e. Identification and definition of terminology in the field of office and business education.

3. RESEARCH ON TRENDS AND DEMAND REQUIREMENTS FOR OFFICE OCCUPATION, STUDIES ON TRANSFERABILITY OF SKILLS

a. Research in mobility of office employees among and within job clusters of office occupations.

b. Determine extent and nature of change in office occupations and resultant labor demand.

RESEARCH PRIORITIES

(Labor Work Group)

The Labor work group saw their research priorities in this manner:

1. Research to determine status of labor relations instruction and understanding in office education.

2. Research in mobility of office employees among and within job clusters of office occupations.

3. Identification and definition of terminology in the field of office and business education.

4. Determine extent and nature of change in office occupations and resultant labor demand.

5. Research to determine what office education instructors should know about labor relations as it relates to office education. (Suggested establishing a Labor Relations Seminar.)

6. Research on information and studies now available in office education.

    1. Labor supply and demand studies
    2. Skill studies
    3. Unionization studies

    (This should take the form of an annotated bibliography.)

7. Training Programs - Analysis of labor market adaptation and relationship to training programs in office education.

See Appendixes F, G, H, I, J, K, and L for guidelines developed by the Labor work group.

IV. DISCUSSION

Analysis and Interpretation

The conference leaders in business education believe there is a need for research in job requirements, job opportunities, and the resultant effect on the curriculum. With the government's emphasis toward the training of disadvantaged youth and those who leave school, it would seem that job requirements and job opportunities for high school business students would be a logical research choice. There is also the feeling among business educators that if we know exactly what the job opportunities and requirements are, the training time might be cut since we could possibly eliminate some items which we now teach in the business curriculum. If business teacher educators do not know what is expected of a high school business graduate, then how can the business teacher educators properly train prospective high school business teachers?

One big question seemed to reoccur during the conference, and that question dealt with work experience in office occupations for both teacher and student. The question centered around the necessity or desirability of work experience. It would be desirable for research to be conducted in this area.

In determining research needs and priorities from the management point of view, the conference leaders in this area saw as its primary research area, a depth analysis of office jobs. This analysis would provide teachers of office education with the actual standards that are needed for initial employment. Undoubtedly a study of this type on a national basis would have broad implications for curriculum changes.

The Labor work group seemed to imply a need for labor relations instruction as well as a need to find out about office employees' mobility in office occupations.

All groups, working independently, seemed to agree that a high priority should be given to research in job requirements, job opportunities, occupational change and the effect this will have on the instructional phase of education.

Undoubtedly some of the needed research as determined by these groups is "unresearchable" by an individual or perhaps even by an institution. Nevertheless, consideration must be given to these needs and, if at all possible, encouragement given to graduate students and graduate schools to undertake these important research topics.

It might also be noted that a number of these research items can be tailored to suit individual needs. Where a national study is indicated, perhaps a more localized project might give some indication of a solution to the problem.

V. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The Business Education work group gave top priority to research on knowledge and skills in data processing needed by office workers and asked for a study to determine whether work experience is of sufficient value to be required in the certification of teachers of business and office occupations. In all, the business education group ranked 29 different topics for research. They divided these topics into two general groups: (1) Research relating to the office worker and (2) Research relating to office teacher education.

Management listed twelve research topics and gave top priority to a depth analysis of office jobs. This group was also quite interested in determining actual performance standards for initial employment of the office worker.

Labor indicated twelve possible research topics and divided these topics into three general headings: (1) Labor relations, (2) Office occupations and training and (3), Research on trends in office occupations. Top priority was given to labor relations instruction and understanding in office education. In addition the labor group was interested in a study of factors which influence the successful mobility of office employees within job clusters of office occupations.

Utilization of the work done by these groups will be accomplished by wide national dissemination. All National Association of Business Teacher Education institutions will receive a copy (294 in number). The U. S. Office of Education will receive its required number of copies, as will ERIC.

By distributing the results of this conference to all members of the National Association of Business Teacher Education, advisers of business education graduate programs will be made aware of needed research in office education. Through this channel it is believed that some worthwhile needed research will be accomplished.

Recommendations

It is recommended that the needed research in office education proposed in this report be utilized in the following manner:

1. The information should be given wide dissemination.

a. Complete reports should be furnished to the U. S. Office of Education, ERIC, and all National Association of Business Teacher Education members. A covering letter encouraging members to duplicate and distribute to all graduate students should be included.

b. Conference leaders and participants in this project should be used to disperse this information.

c. Supervisors and Directors of office occupations on state level should be informed. It is suggested that a follow-up clinic for these individuals be held.

d. Plans should be made to have this material discussed at Delta Pi Epsilon meetings, National Business Education Association meetings, and other professional meetings such as the American Vocational Association convention and state and regional meetings.

(1) The information contained in this report should be sent to program chairmen so that it could be included as part of the program.

(2) The information contained in this report should be sent to participants in various programs so that they could incorporate the information in their speeches.

e. A summary of this report should be released to all professional journals.

f. Agencies such as the Administrative Management Society, National Secretaries Association, and others should be informed of these proceedings.

2. Consideration might be given to the establishment of an Academy of Research for Business and Office Education. This Academy would serve as an administrative organization and as a promotional agency for research in business and office education.

3. Forty-four states have Research Coordinating Units. These Units should be utilized to help coordinate research in business and office education.

4. Inter-institutional research should be promoted and encouraged.

5. Inter-disciplinary research within and between universities and other agencies should be promoted and encouraged.

6. The Bureau of Research should be encouraged to promote small grants to doctoral programs without the detailed request plans that are necessary for the larger grants. These grants could be limited to $7,500.

7. The research topics listed as needed by the work groups in business education, management, and labor as presented in this report should be encouraged and actively supported by the U. S. Office of Education.

VI. SUMMARY

This project was designed to determine what is needed in research in office education, to give these needs priority, and then to develop guidelines for this needed research.

Individuals in business education, management, and labor were brought together as three separate groups to determine what research is needed in office education from the three different viewpoints. After determining the needs and giving the research topics priorities, the groups developed guidelines for research as time permitted.

The business education group gave top priority to job requirements insofar as the office employee is concerned. This business education group was also concerned with the feasibility of a work experience program in the preparation of office education teachers.

Management ranked as its top priority a depth analysis of office jobs. Since both business education and management seem to be in harmony about top priority on this subject, it would be logical to conclude that research should be done in this area as soon as possible.

Labor was concerned about the status of labor relations instruction and understanding in office education. It would seem that little has been done in this area, and it is suggested that research on this subject be encouraged.

Utilization of this research can be made through wide national dissemination of this report and the encouragement of graduate students and institutions, both educational and private, to do this needed research in the area of office education.

There is also the possibility that an Academy of Research for Business and Office Education could be established to act as an administrative agency and to encourage research in the area of office education.

The Bureau of Research is encouraged to promote small grants for doctoral programs and to do away with the lengthy request plans.

It is highly recommended that the U. S. Office of Education actively support and encourage the research needs of office education as outlined by this report.

APPENDIX

APPENDIX A

"RESEARCH OPPORTUNITIES"

Mr. Elmer L. Schick
U. S. Office of Education

(Address)

To quote Dr. Walter M. Arnold, Assistant Commissioner for the Division of Vocational and Technical Education, U. S. Office of Education, "Vocational Education is a modern social efficiency device." Without effective research this device could break down. Therefore, let us use this tool in office education to assure constant change and improvement in our program. The important role of research was reflected in the recommendations of the Panel of Consultants on Vocational Education, which was created by the late President Kennedy, and by the authors of the Vocational Education Act of 1963. This is all summed up in Section 4(c) of the 1963 Act itself, where it reads,

> Ten per centum of the sums appropriated pursuant to Section 2 for each fiscal year shall be used by the Commmissioner to make grants to colleges and universities, and other public or nonprofit private agencies and institutions, to State boards, and with the approval of the appropriate State board, to local educational agencies, to pay part of the cost of research and training programs and of experimental, developmental, or pilot programs developed by such institutions, boards, or agencies, and designed to meet the special vocational education needs of youths, particularly youths in economically depressed communities who have academic, socio-economic, or other handicaps that prevent them from succeeding in the regular vocational education programs.

This Section of the Act is making it possible for our meeting here this week, and also reflects the highly important function of research in bringing greater efficiency to our educational program and solving many of its problems.

Other research activity is also provided under Section 4(a) of the Act which specifies,

> Ancillary services and activities to assure quality in all vocational education programs, such as teacher training and supervision, program evaluation, special demonstration and experimental programs, development of instructional materials, and State administration and leadership, including periodic evaluation of State and local vocational education programs and services in light of information regarding current and projected manpower needs and job opportunities.

At present, there are eight or nine research projects that are being supported under this section of the 1963 Act.

The Division of Vocational and Technical Education, U. S. Office of Education, further reaffirms the important role of research in the improvement of vocational education by including it as the final but very important step in a total SYSTEMS APPROACH to achieving educational efficiency. Dr. Arnold, in his report to the General Subcommittee on Education and Labor, U. S. House of Representatives, June 9, 1966, explained this Approach. It begins with Federal and State legislation, supported by new Federal and State regulations, policies and procedures, then reflected in new State Plans, and followed by projected programs of activities submitted by the States. From there the Approach proceeds to the annual and special statistical, financial and descriptive reports made by the States. This latter step actually becomes the first feed-back into the System. The next step is evaluation, which provides further feed-back; and then the final step, which makes so much meaning to us today at this meeting, RESEARCH conducted both on the Federal and State levels in order to provide constant change and improvement in the program.

Already I have said that without research, constant change, expansion and greater efficiency in the program is impossible. We in vocational education and in office education, which is a part of the total program of vocational education, must look at research as does private industry and business. Private industry allocates anywhere from 5 to 15% of its budget to research for the purpose of keeping solvent and abreast of the times. We certainly must do the same, and with the same purpose in mind.

To quote Dr. Bruce I. Blackstone, Head, Office Occupations Unit, Division of Vocational and Technical Education, U. S. Office of Education,

> Office work in many respects will continue to do what it has been doing in the past, but also doing it better and faster and covering more material. In face of this speed-up, office educators are faced with the problem of knowing what office workers actually do, how they do it, and how this can be translated into educational experiences for students. It seems to me that research is the tool which will provide the clue to these questions.

I feel that if we are to have quality and realistic programs in office education, we must take a hard look at what we are and should be doing to meet the occupational needs of all students (their interests, abilities, and problems) at all educational levels in all communities. We must also take a hard look at what we are and should be doing to gear our programs to manpower requirements and job opportunities, both present and projected as they are evident at local, state, regional and national levels. All this hard look must be based on research and not somebody's textbook, opinion, or mere hearsay. To substantiate my words, I would again like to quote Dr. Blackstone.

> This mission of office education is to provide education to persons for a lifetime career in the facilitating function of the office through initial refresher and up-grading programs.

> To do this, we need to know what office workers do, what technical skills they need and what essential skills and occupational intelligence is required. With this information in hand, it is then necessary to determine how the learning experience of office education students can be arranged to provide the most effective results in terms of the objectives of the office education programs. How should this material be taught? What organization of learning experience is most effective? How may we insure what has been done in our teaching program?

Many of these answers will come from research, and our research will not be so much to improve business education but will be directed toward improving education for office occupations.

I was very interested in reading Dr. Clarence Maze's editorial in the May, 1966 issue of the Journal of Business Education, entitled "Possible Side Effects of the Vocational Education Act of 1963." I cannot say that I agree with everything he had to say, but I do believe his article reflects the need for research. Let me quote from his article.

> Under the state plans required by the Vocational Education Act of 1963, work experience for teachers in approved vocational business programs is being made compulsory. The amounts range from vague expressions that work experience is desirable to a specified number of clock hours, usually 2,000 to 4,000 clock hours. We must be careful that we are not copying the work experience requirements of other vocational areas. The trade and industrial education teacher training program has had a quite different historical development. To emulate the program of other vocational education areas, therefore, is not necessarily the best basis for the work experience requirement for business teachers. Perhaps some work experience for vocational business teachers is desirable, but our whole system of formal education is predicated on the assumption that individuals can learn most things vicariously. Aside from the fact that it may be a great waste of time....
>
> There has been no research, however, that answers the two questions of "What is the optimum type?" and "What is the optimum amount?" of work experience. Should the work experience be continuous over a long period of time, or are short exposures to various types of office and distributive occupations, such as during vacation and holidays, satisfactory?

I believe that this certainly reflects the need for much more research in education for office occupations, because I believe we have been basing too many decisions and actions on guess-work or opinion, and not factfinding.

I have been pleased so far with the progress of this conference. I believe that it has taken hold of the true definition of office education. Therefore, I will spend little time in expressing my views, and that of my office, concerning the definition of office education, or perhaps we should face reality and call it education for office occupations, as I have already mentioned. I recommend highly that you read the material

which I have distributed here at this meeting which explains and describes what we in the Division of Vocational and Technical Education believe is the valid "Educational Cycle for Office Occupations," and which explains in fairly comprehensive form what we feel is the "Scope and Need for Office Occupations Education." I would at least like to read this quotation from the material. I feel it has a great deal of implication for research in the education for office occupations.

> The changing pace of our world, and of our offices, too, has changed the nature of office workers. Office automation is changing the speed with which we do our tasks and at the same time the way in which we do them. The day of the quill pen is gone--the day of the printout is here. This requires a change in approach to education for office occupations. It is no longer sufficient to train a person to typewrite a little, and know the bookkeeping cycle, and get along in some form of shorthand.

These are the facts we must face and we must believe that education for office occupations "starts from an analysis of the occupation and its description in behavioral terms...."

I believe that we, in office education, have been guilty many times of supporting research that has not contributed to the improvement of education for office occupations. May I list a few of these research studies that have been conducted or are being conducted which I feel have little or no application to the area of office occupations education. Before listing them, however, I would like to say that I am so pleased to note that the research problems that we have identified so far in this conference do not parallel the orientation of these research studies. Now let me list them, keeping in mind that I am not ridiculing them, but just emphasizing that they are not office occupations education oriented.

1. A Study of the Effectiveness of Selected Drill Techniques in the Improvement of Transcription Skills
2. An Experimental Study of Student Achievement in Typewriting as Effected by the Use of Material of Standardized Difficulty vs. Material of Progressive Difficulty
3. An Experimental Study of the Effects of Background and Rhythm Music on Certain Aspects of Skill Development in First-Year Typewriting at _____ School.
4. The Effects of Home Study on Achievement in Business Arithmetic
5. The Effectiveness of an Individualized Mechanical Pacing Device, The Strong-Pacer, in College Typewriting

6. An Experimental Analysis of Two Spatial Patterns in the Mastery of the Number Key Reaches on Non-Electric Typewriters

7. A Study to Determine the Effect of the Early Introduction of New Matter Dictation in the Teaching of Beginning Shorthand to College Students

8. Psychological Concepts Germane to Efficient Motor Skill Development in Typewriting

9. An Error Analysis of Selected Brief Forms and Principles in Shorthand Notes of Beginning Gregg Diamond Jubilee Shorthand Students

10. Effective and Ineffective Behaviors of Student Teachers of Business Subjects

Now let me list for you some of the research projects which have been proposed and which I feel are closely related to the improvement of education for office occupations.

1. Form of and Procedure in Taking Dictation for Initial Stenographic Secretaries

2. A Functional Analysis of Present and Predicted Duties Performed by Office and Distributive Workers with Implications for Curriculum Revision and Development in Secondary and Post-Secondary Educational Institutions

3. Quantative and Qualitative Analysis of the Changing Duties of the Stenographer-Secretary

4. Communication Skills Development for Economically Deprived Office Education Students

5. A Training Program for Scientific Secretaries

6. The Need for In-School Business Data Processing Training Programs

Let me now spend the remainder of my talk describing the Division of Adult and Vocational Research, U. S. Office of Education, and its purposes. I believe through this discussion we can acquire a better understanding of the research opportunities under the Vocational Education Act of 1963. The purpose of Division is this: it "supports a broad spectrum of research and development programs designed to help present and prospective members of the labor force acquire the basic knowledge, skills and personal characteristics

necessary to insure continuing and satisfactory work careers." Now, what are the branches of the Division, and what are their concerns? By describing their concerns, this will be an aid to you in identifying the types of research problems that can and should be submitted to the U. S. Office of Education. First, there is the Employment Opportunities Branch. It is concerned with the identification of labor market trends and emerging job opportunities in order:

1. to plan, administer and evaluate programs of adult and vocational education

2. to identify the common skills associated with clusters of jobs

3. to identify their relationship to training needs

4. to develop vocational counselling and guidance data

Also, this Branch is concerned with the development of model local, state and regional job surveys. Second, there is the Division's Human Resources Development Branch. Its concern is focused:

1. on the individual needs of vocational students

2. improved ways of teaching culturally deprived youngsters

3. the development of basic learning skills

4. motivation of adult workers toward occupational self-improvement

5. improvement of career guidance techniques at various age levels

Finally, there is the Educational Resources Development Branch. It is concerned with improving vocational education curricula, facilities, methods and materials by:

1. encouraging this through research, but also pilot, experimental, demonstration, developmental programs and their evaluation conducted at the regional, state and local levels

2. recruiting and training administrative and research personnel for these programs

One of the significant research proposals that has been approved through this Branch, is the Research Development Unit project agreement with Michigan State University, College of Education, (Research and Development Program in Vocational-Technical Education). One segment of this proposal encompasses the Vocational Office Block Experimental Program (trying out the concept of using 2-3 hour blocks of time in a laboratory-type teaching environment for senior office subjects in high school) which is being conducted in five cooperating states - Michigan, Florida, Washington, Arizona and New Jersey. The results of this experimental program should have significant impact on education for office occupations.

The Bureau of Research, U. S. Office of Education, has also contracted four other state universities or foundations to do research under the Research Development Unit type of arrangement; they are Washington State, Iowa State, American Institute for Research and the University of New York (in cooperation with its State Department of Education and the University of Connecticut).

In addition to the five Research Development Units, the Bureau of Research has designated two universities to be Research Development Centers. They are North Carolina State and Ohio State University. This latter institution (actually, the Vocational and Technical Research Center, headed by Dr. Robert Taylor), has also been designated as a satellite center for ERIC (Educational Research Information Center). Its responsibilities, as revealed by a recent newspaper release, are:

> Creation of a national network of twelve clearing houses to assure widespread distribution of important education research findings was announced today by the U. S. Office of Education. The clearinghouses, or documentation centers, will be situated at universities and other institutions throughout the country. The Office of Education has allocated $1.7 million for the project. Coordination of the document clearinghouses will be carried out by the Office's Educational Research Information Center (ERIC).

U. S. Education Commissioner Harold Howe II pointed out that research in education is producing a growing body of information to improve teaching and learning at all levels.

> The rate at which this information emerges will accelerate in the years to come. Unless it is made readily available to teachers, administrators, and researchers themselves, progress in education will be thwarted. Through the Educational Research Information Center, the Office of Education is coordinating a major effort to assure that every child in every school may benefit from advances in education.
>
> ERIC will store the full texts of documents on microfilm, make the documents available to the education community at nominal cost in pamphlet or microfilm form, and publish announcements of all new acquisitions. Each clearinghouse will conduct the

> documentation work in a particular area of education. It will acquire, select, abstract, and index all relevant documents. Each center will be manned by experts in the subject matter involved and specialists in modern information retrieval techniques.

Of the twelve clearinghouses mentioned in this news release, the Vocational and Technical Research Center, Ohio State University, will assume the responsibility for the area of vocational and technical education.

Now, I would like to say something about the State Research Coordinating Units, which have been organized and supported under the Vocational Act of 1963, especially because of a statement made by Dr. Arnold before the Perkins Committee, U. S. House of Representatives, June 9, 1966. He said:

> The dissemination and application of research results at the local operating level are expected to be the most important valuable sources of feed-back into the SYSTEM and hence, produce constant change for improvement of programs of all kinds.

At present, the U. S. Office of Education has contracted with 44 States (State Departments of Education or state universities) for the purpose of assisting the States in the coordination of research, experimental, demonstration, and pilot programs. These Units will enable State Departments of Education and teacher education personnel to engage in innovative programs and will enable the States to get the research done that needs to get done in each state. To be more specific, the activities of these Units will be to: (1) inventory research resources (individuals and organizations) in the state; (2) train researchers; (3) review the outstanding problems of vocational education; and (4) establish research priorities and to disseminate research proposals.

Finally, let's get down to the particulars of research proposal submission. As an introduction to this topic, may I quote Dr. David S. Bushnell, Director, Division of Education and Vocational Research, U. S. Office of Education.

> The Division was established in October, 1964, to administer Section 4(c) of the Vocational Education Act of 1963. During the nineteen months that this research and development support program has been in operation, approximately 950 proposals have been submitted for review and approximately 300 have been approved and funded. (Too few of these have been in the area of office education.)
>
> If you consider that an average of 50 professional people are involved in each of the 300 or so projects approved, some 15,000 professional people have committed themselves to strengthening and providing new direction to vocational education.

Now let me just list for you the criteria this Division uses in evaluating project proposals, whether they be research, training and experimental - developmental - pilot programs. All projects are evaluated in terms of (1) basic significance or general applicability, (2) soundness of the research designed or plan of operation, (3) adequacy of the personnel and facilities, and (4) economic efficiency of the project. To emphasize the importance of this criteria, I would like to list from the document, Informal Check-List for Proposals, published by the Division of Adult and Vocational Research, the questions pertaining to research proposal submission:

1. Is the proposal directed toward a problem of major significance in vocational and technical education? Has the initiator demonstrated this in his write-up?

2. Is the approach to the problem an innovative one?

3. Would the results of the proposed project be generalizable over a broad area?

4. Has the initiator reviewed related research and development activities (both completed and on-going) and explained how his proposal would not duplicate but would rather carry forward the efforts already completed or underway?

5. Are the objectives of the proposal properly de-limited and stated in a clear and specific manner?

6. Are the procedures for achieving the objectives appropriate, technically sound, and spelled out in full detail?

7. Are the plans for treatment of data, analysis, and/or evaluation adequate from the technical standpoint, appropriate in relation to the objectives, and presented in a complete and detailed manner?

8. Is the proposal internally consistent? Has the initiator presented a direct, straight-line relationship between the objectives, the procedures, and the evaluation?

9. In the case of an experimental, developmental, or pilot program, has the initiator described effective ways in which the results of the program will be disseminated to others?

10. Is the budget realistic, and are the budget items related specifically to the procedures that are to be followed?

You have already been told of the priorities for research proposals as established by the Division of Adult and Vocational Research; however, I would like to emphasize that these priorities are being revised and, therefore, they do not preclude the submission of other proposals, especially if they prove to be innovative, and well-structured, and will make a significant contribution to the improvement and expansion of vocational education. I might also like to add that before any individual or institution initiates a proposal, he should become well-informed as to what research proposals are already in the "hopper" or completed. Now, I have already indicated to you one important source document - Informal Check-List for Proposals - that should be in the hands of all potential researchers. The others are: (1) Guidelines for the Division of Adult and Vocational Research (which goes into considerable detail about the Branches of the Division and their concerns); (2) Support for Research and Related Activities (which describes how to write, structure and submit a research proposal), and (3) How to Prepare a Research Proposal, by David R. Krathwohl, Syracuse University. This latter document has not been produced by the Division of Adult and Vocational Research, but I believe this Division would surely support my convictions that it is one of the most valuable guides to the preparation of a research proposal.

You can be sure that the Division of Adult and Technical Research considers very carefully every research proposal that is submitted to it. When it comes in, it is assigned to one of the three Branches of the Division and then is evaluated carefully by field readers or a panel of experts. The use of the panel approach is becoming the trend. In addition, the research proposal is submitted to the Occupations Section, Division of Vocational and Technical Education, for its review. Proposals pertaining to office occupations education would come to Dr. Blackstone and me. So you can see that each research proposal goes through the "thorough treatment". I would like to suggest here that, perhaps, it might be advisable, in some cases, to prepare a preliminary proposal for evaluation. The staff in the Division of Adult and Vocational Research and the Occupations Section, Division of Vocational and Technical Education, welcome the opportunity to help individuals and institutions refine their proposals before formal submission. Often this procedure will expedite matters and the two Divisions are not concerned with "weeding out" research proposals, but are interested in encouraging and helping along any research that is both innovative and will contribute significantly to the ongoing improvement of vocational education, in our case, education for office occupations.

Let me close by saying that we are here this week acknowledging the significant contribution research can give to the redirection and improvement of office education - an educational program which must receive its vitality from a continuous, realistic appraisal of present and emerging job opportunities in office work, a careful and ongoing analysis of manpower requirements in this field of work, an acceptance that a balanced instructional program at all educational levels is desirable and essential, and a dedication to the concept that all persons who can profit from office occupations education will receive it, whether they be the most talented or those with special disadvantages of a social, economic, educational, physical and mental nature.

APPENDIX B

CRITIQUE OF RESEARCH COMPLETED IN OFFICE EDUCATION

Panel
Dr. Hicks, Dr. Crews, Dr. Cook

Presentation by Dr. Hicks*

There are four ideas to think about that research has suffered from:

1. Limited perspective
2. Todayness
3. Softness
4. Inadequate theory

We are, of course, excluding from our comments any research done or supervised by anyone here. We shall use the political strategy of i.e., present company excluded.

We feel each of you has views, and you may wish to express them. A subject as basic and far-reaching as research, even in office education, cannot be covered in one hour.

Most research in office education has been done by doctoral students and master students rather than by basic research organizations and institutions, which probably explains many shortcomings.

1. PERSPECTIVE -- One can certainly be critical, yet understanding of the reason for most research (at least in the past, prior to grants, etc.) which has been more personal and degree centered than truth oriented. The longitude and limited scope has been either enough to get by or a faint hope to solve all the world's problems. The perspective is normally too broad; it covers the waterfront and is, therefore, meaningless. In dealing with the subject initially, the person selects a broad topic like management or business education because he is worried about having enough to say on the topic. In this way he believes the payoff is more certain.

2. TODAYNESS -- Most of us are "today" oriented rather than "tomorrow" oriented. Our thinking should be shaped by what ought to be and what can be. By looking ahead, reacting to, and shaping we can borrow a lesson from industry. We can observe industry's process of creating a product. In this process industry is not trying to find out what's happening today--competition already has found that out. Rather it is trying to discover what can be. However, do not discount the past; today is yesterday reaching toward tomorrow.

To quote C. F. Kettering of General Motors:

> Research is a high-hat word that scares a lot of people. It needn't. It is rather simple. Essentially it is nothing but a state of mind -- a friendly welcoming attitude toward change -- going out to look for the change instead of waiting for it to come. Research, for practical men, is an effort to do things better and not to be caught asleep at the switch. The research state of mind can apply to anything -- personal affairs or any kind of business, big or little. It is the problem-alone mind. It is the "composer" mind, instead of the "fiddler" mind; it is the "tomorrow" mind instead of the "yesterday" mind.

Much more could be said -- differently, better, but as I see our research (what little there is) in office education, it has suffered from limited objectives, perspective, a today orientation, a nice guy philosophy, and little theory.

3. SOFTNESS -- We're too nice, too understanding as opposed to being analytical, brutal, skeptical, and tough. We've described and suggested variables and answers to questions rather than insisted on the rigor of critical relationships. Office (and business) education (and management) research is, I suspect, scoffed at by the sciences, which utilize the lab-type analysis.

4. INADEQUATE THEORY -- Our research depends more on the what than the why. It has been more practice than theory. We need theory: Theory is "A systematic interpretation in abstract terms of a generalizable trend that prevails in a set of varied facts, explaining their inter-relationship" as quoted by Greenwood in THE PRACTICE OF SCIENCE AND THE SCIENCE OF PRACTICE.

The content of research in office education (as in others) should be systematic and interpretive and should seek explanation of phenomenon.

*This is an abstract and not the complete report by Dr. Hicks.

"CRITIQUE ON RESEARCH"

Presentation by Dr. Crews

We have been reminded time after time that practically all of the research in office education has utilized the survey or normative method. Furthermore, almost all of this research has been completed by persons seeking masters and doctors degrees. In general, the studies have been of the "status" or "what is" type, and the survey method has been quite appropriate for this type of study. There does not appear to have been much "action inducement" resulting from most of these survey studies. For example, study of the status of business education in a particular school system seems to be of little value beyond requirements for a degree.

The masters degree students have frequently pursued studies using the survey method, but the historical or library type study has been pursued more frequently by doctoral students. Too often a research method has been chosen first, and then a suitable topic or study which could be solved by that particular method was selected. Certainly there is a place for both the survey and historical types of research, but the topic should be chosen first, and then a suitable method should be selected.

The least used method in business education research, and for that matter, in all of educational research, has been the *experimental method. In many, if not all instances, this method* will involve more time and expense to the research. These two characteristics immediately make the method less desirable for graduate students' use. Furthermore, most educational institutions granting graduate degrees have really discouraged the experimental method by encouraging the survey and historical-type studies. Frankly, I doubt that we will ever induce students to select topics needing treatment by the experimental method unless we can help them secure financial assistance appropriate for the task. If we really expect to see the experimental method used, it is clear to me that less dependence must be assigned to graduate student research. More experienced researchers must become involved if the quality and method used are to be changed or improved appreciably.

An interesting and promising innovation in research is the coupling of program development with research relative to the effectiveness of that development. The current study in vocational office education being conducted by Michigan State University is a good example of this innovation. This will undoubtedly involve use of the experimental method.

Finally, more emphasis should be placed on what some have called "action research." Basically, this involves a live situation usually in a classroom or some administrative office. Usually the finer and more sophisticated language of research planning and

reporting is not used in this kind of research. The purpose of such research is to "informalize" and thereby encourage the teacher and/or administrator to become more research minded and apply research methodsand techniques to real problems.

Let's not discard any of the commonly accepted methods of research, but let's work toward a greater emphasis on an experimental approach and encourage classroom teachers to do "action research."

"CRITIQUE OF RESEARCH"

Presentation by Dr. Cook

My objective this morning will be to take a look ahead in research in business education or recommend some positive approaches that you might keep in mind for:

a. doing research
b. evaluating research and
c. disseminating research.

The future of available research programs in business education cannot rest on the traditional approach of the doctoral dissertation concept that we have utilized almost exclusively in the past. As a matter of fact, it must not give credence to, or support for, the continuation of the vast majority of masters' theses that are currently being produced. In fact, my recommendation would be that with very few exceptions the masters' theses be completely discontinued and that only selected individuals who really had a desire should be permitted to write theses. At a date within the foreseeable future it would be my suggestion that a similar approach be used for the doctoral program.

Specifically it is suggested that only those prospective doctoral students who want to be researchers should be encouraged to, and in fact, allowed to work on a doctoral dissertation.

The approach to be used on this doctoral dissertation, in my opinion, should differ considerably from that program followed in the past. For example, we might have the doctoral student utilizing the resources of a number of specialists in helping him prepare, organize, collect, solve and write up his dissertation topic rather than the individual researcher i.e. graduate student doing all the work by himself.

My primary concern, however, this morning is in a different facet as far as the doing of research is concerned, which is point A. There are three possible future innovations that we might consider. First of all, let us consider inter-institutional research through the research center for vocational education at the Ohio State University. We have the vehicle now for two, three or more institutions that have doctoral programs working with Dr. Huffman in the development of a major study dividing up the work and the procedures for accomplishing the job. I would urge the Ohio State University through its vocational research center to take the initiative in developing a proposal to be submitted to a minimum of five graduate business education departments. This proposal would outline a method for the cooperating institutions to work with the Ohio State University in the development of a broad research project and specific methods of allocating potential

2/

dissertations of this major study. In addition, it would provide guidelines for the procedures to be used in the respective graduate schools concerned.

It is my belief that our university and a number of other universities would be willing to work on an experimental basis in the development of a "different approach" to the dissertation requirement of the doctoral program. I recommend this approach i.e. the inter-institutional approach as being one of the primary ways that we can be innovative in developing more valuable research in the field of business education. The second possible way that we should consider for a more valuable research program in the field of business education would be through inter-organizational cooperation. In 1966 Delta Pi Epsilon and the National Business Association, through its research foundation, cooperatively developed a research proposal for funding through the Division of Adult Vocational Research of the U. S. Division of Education. It is my feeling that the various professional organizations in the field of business education must, and can, cooperate in the development of major research projects that will have impact upon the total field.

Delta Pi Epsilon through its research committee and NBEA through its research foundations are two prime examples of organizations that can and should continue to operate in the development of, and the production of research in our field. The third suggestion for more effective ways for doing research would be through the cooperative development of research projects. This may be the most radical and most heretical of the proposals suggested this morning. However, this approach is basically the one that is used by research organizations and is one that has worked effectively for Delta Pi Epsilon. To be a little more specific I'm suggesting that instead of an individual doctoral student or a professor of business education sitting down in his ivory tower developing the statement of problem, reviewing the literature, stating the objectives, developing the procedures, etc., etc., it might be feasible and much more effective for productive research that is broader in scope and more important in its implications to have a business education specialist sit down with a specialist in research design in statistical analyses, and report writing, and consultants from other fields as needed, to take a basic idea that needs to be researched in our field and cooperatively develop the complete proposal.

An example of this procedure is one that was utilized in 1964 by Delta Pi Epsilon research committee. In March 1964 some twenty business teacher educators and four consultants convened for four days in Detroit. The group was divided into two committees. Each committee had working with it a design consultant and a research specialist. Each group was given a four-page outline of a proposed research topic. Each group took their proposed research topic with the aid of the research specialist and

with the aid of a business education expertee within the group. They proceeded to develop an expanded proposal. One group, for example, developed a proposal concerning the utilization and the teaching of data processing. This proposal was subsequently turned over to Dr. Heimerl at the University of Colorado who was working as the principal investigator, hired consultants to work with him and Dr. Hillestad and cooperatively then, they developed a proposal for submission to the U. S. Office of Education. This project was subsequently funded for approximately $150,000 and data is currently being collected. The second group started out with a study to up-date the Charters and Whitley research in 1924. This was developed into an expanded proposal which was subsequently given to Dr. Fred Cook as the principal investigator. He worked with several research consultants and developed a final proposal which was submitted for funding to the U. S. Office of Education. This proposal was funded for two years effective July 1, 1966.

These are two specific illustrations of a cooperative approach to the writing of a research proposal. This idea has worked in at least six specific cases for the speaker. This has resulted in almost three-quarters of a million dollars worth of funded research projects, a total of eight that have been developed utilizing a committee of experts in developing and overseeing a research project.

The utilization of specialists is a concept that American Business Management has used for years. It's an idea that major research organizations, such as Stanford Research Institute and the American Institute, to name a few, have used successfully to secure and conduct research. It is my urgent plea that business education adopt this method as a primary vehicle for doing substantive research in our field.

So much for the three proposed methods of doing or conducting research. These would include then in summary, inter-institutional approaches, inter-organizational approaches and cooperative development of specific research proposals by a group of experts including, of course, business teacher educators.

Each of the preceding speakers has emphasized the necessity for a more careful evaluation of the outcome of the research that we are now conducting. We all gave illustrations of masters and doctoral theses that have meaningless titles and more meaningless results. Dr. Hicks suggested that one of our problems was that we are too kind, too soft, too nice with our peers. Consequently my recommendation is a repetition of an idea that has been suggested at a meeting of the National Business Education Research Foundation at a research meeting at Ohio State University in private conversations with Dr. Frank Lanham of the University of Michigan and Dr. Harry Huffman of Ohio State University. A

specific suggestion that will enable business education business teacher educators or business education researchers to develop an evaluating process to develop an academy of business education research. This academy should be composed of individuals who are actively engaged in doing and overseeing research projects, individuals who would be willing to assess their own work in a professional manner and to communicate to the profession the advantages and limitations of the reported research with recommendations for strengthening future research projects.

We must police our own work and if we do not, we will continue to turn out doctoral dissertations that could well have been left undone. On the second point, the evaluation of research, I am recommending for consideration of this group the development of an academy of business education research. One principal responsibility of such a group of researchers would be: The critiqueing or evaluating of research projects as they are completed.

The third point that we need to keep in mind would be the dissemination of research. ERIC of course will provide one vehicle through which researchers can talk to each other. We need to have a way for researchers to talk to the other business educators and more specifically to the classroom teacher or the practitioner. The NATIONAL BUSINESS EDUCATION QUARTERLY, of course, as well as the JOURNAL OF BUSINESS EDUCATION and more recently the DELTA PI EPSILON JOURNAL provides a method for bringing research findings to the attention of those who read such periodicals.

Perhaps a more effective vehicle for the practitioner would be the method used by Delta Pi Epsilon in its publication on what we know about some research in the teaching of typewriting. Presently the fraternity is concerned with the process of developing similar summaries and implications in research for the classroom teacher in such fields as shorthand, bookkeeping and general business.

In addition to bringing summaries of research and the implications of research to the classroom teacher and to the business teacher educators, we need to make some specific suggestions for each research study concerning some possible ways that this research and specific findings from a given research project could be implemented in a classroom situation.

I suggested what we need to do to evaluate and to disseminate to the practitioner a more valuable business education research program. I've suggested that we must no longer base our research upon masters theses or even upon doctoral dissertations. In fact, I recommend that masters theses be eliminated almost entirely.

In addition, I've suggested that doctoral dissertations be reduced tremendously in number and that those doctoral dissertations that are done in the future might well be done with the aid of consultants within the institution to help the researcher do a more effective job in the design and execution and the writing of the result.

The availability of funds through the Vocational Act of 1963, the Elementary and Secondary Education Act, Higher Education Act, and many other state and federal funds now make it feasible and absolutely necessary for the business education fraternity to arise to the opportunity afforded to them now for effective research. The preceding may give us guidelines for the development of a reliable research program.

APPENDIX C

A DETERMINATION OF THE TECHNICAL AND ADMINISTRATIVE KNOWLEDGES AND CONCEPTS NEEDED FOR THE CHANGING WORLD OF WORK IN THE OFFICE

(Business Education Work Group)

OBJECTIVES

1. To determine the technical and administrative knowledges and concepts that should be a part of the educational experiences of a person preparing for and advancing in office occupations.

2. To determine the educational levels at which these knowledges can most effectively be acquired.

3. To determine the curricular organization which would implement the acquisition of these knowledges and concepts.

4. To determine the implications for office teacher education.

ASSUMPTIONS AND HYPOTHESES

1. Technical and administrative knowledges and concepts are necessary for success in the initial job and for advancement.

2. These knowledges and concepts are identifiable.

3. These knowledges and concepts can be developed in an organized instructional program.

4. There is a direct relation between an appreciation and understanding of the office environment and success in office occupations. (This assumption will be documented from other research studies.)

PROCEDURES

1. To bring together a group of experts and consultants to explore and develop the categories and classifications of knowledges and concepts to be investigated, which might include university professors of office and administrative management, representatives from Administrative Management Society, Data Processing Management

Association, Systems and Procedures Association, Personnel Management Association, National Secretaries Association, and other authorities and leaders of office and administrative management from business, industry and government.

2. To bring together a group of experts and consultants to plan and develop the instruments and techniques to be employed to discover the knowledges and techniques, which will include experts in job analysis, interview techniques, and industrial psychology.

   a. To develop the instruments and train the interviewers.

   b. To establish with the aid of consultants the sampling procedures and sizes of firms and organizations and geographic distribution.

   c. To conduct a trial run for the purpose of further refinement of the instrument and the development of the reporting procedures.

   d. To proceed gathering data.

3. To conduct follow-up studies of graduates and school "leavers" to determine when they needed these knowledges and concepts.

   a. To obtain rankings by level of these knowledges and concepts from educational experts.

   b. To discover by interviews and questionnaires the standards for initial employment and advancement as a means of establishing the levels.

4. To establish criteria for determining state-wide and local curricular organization and courses with the assistance of state office occupations supervisors, representatives of teacher education institutions, and professional associations.

5. To conduct a conference with office teacher educators in order to determine the implications.

RATIONALE

1. The office force continues to grow not only because of the expansion of business and industry but also because of the need for sound and rapid decision-making.

2. There is a direct relationship between an appreciation and understanding of the office environment and success in office occupations.

3. Many young people do not, at the present time, have a grasp of their place in the office environment.

4. Many teacher education institutions do not require courses in administrative and office management.

5. Advancement on the job often depends upon the individual's understanding of the total business and office work environment.

6. An appreciation of the business and office environment gives more meaning and quality to office skills and techniques and develops effective judgment.

7. There appears to be a growing need for technical and administrative personnel in the office.

8. There is a recognized need for teachers of office education to keep themselves informed about the changing office environment.

APPENDIX D

WHAT EDUCATION FACETS OF FUNDED TRAINING PROGRAMS CAN BE ADAPTED TO VOCATIONAL BUSINESS AND OFFICE EDUCATIONAL PROGRAMS

(Business Education Work Group)

PROBLEM: To determine the effectiveness of selected "funded" training programs for the preparation of 16 to 21 year-old youth for entry into clerical occupations as compared with similar programs in comprehensive public secondary schools.

A. The specific objective of this project is to determine what facets of the "funded" programs are especially effective so that they may be utilized in all vocational business and office education programs. Some of the questions to be answered by this study include:

OBJECTIVES:

1. What percentage of the graduates from specific programs get jobs in DOT for which they were trained?

2. How many were in the same type of job one year after graduation?

   a. A higher job?
   b. A lower job?
   c. Unemployed?
   d. Other?

3. What standards or competencies are expected at the completion of the program?

4. What are the similarities and differences in the type of materials being used for instructional purposes?

5. What are the similarities and differences in the type of equipment being used for instructional purposes?

6. What are the similarities and differences in teacher preparations (experiences, degrees, certification)?

7. What are the similarities and differences in students?

   a. Method of selection
   b. Test data (achievement, interest, aptitude, intelligence).
   c. Placement and follow-up procedures.

8. What are the costs of each program and how do they compare in economic efficiency? (factors to be considered:)

   a. Equipment
   b. Space
   c. Supporting services
   d. Materials
   e. Instructional cost, both direct and indirect
   f. Administrators
   g. Subsistence, room and board

9. What methods, materials or procedures that have proven effective in the "funded" programs might be used in the public school program?

SOME LIMITATIONS AND ASSUMPTIONS

1. That the findings from one geographical location are applicable in other geographical locations.

2. Non-federally funded high school programs and federally funded high school programs are similar in results.

3. The high school programs may differ between states because of the differences in state vocational educational plans.

4. "Funded" training programs may differ in content, methods and material because of the training agreements developed by the contractors.

WHY IS THE PROBLEM IMPORTANT?

1. Opportunity to compare present method of training with possible new methods.

2. Opportunity to determine effectiveness of innovative methods.

3. Opportunity to learn of new materials and procedures.

4. Opportunity to assess effectiveness of other organizational patterns for instruction.

5. Opportunity to determine effectiveness of student selection devices.

6. Opportunity to determine whether the graduates of the "funded" training program are more likely to stay on the job than the typical high school graduate.

PROCEDURES

1. Select areas in which two or more different types of "funded" training programs are in operation.

   Criteria for selection to include such factors as:

   a. Availability of a representative comprehensive high school program

   b. A representative community i.e. social, economic, ethnic population distribution

   c. Access to a common labor market that is representative of other labor markets (by distribution or businesses--type and size).

2. Select programs that have had at least one graduating class in the appropriate DOT's.

3. Select one or more DOT programs to be studied (re: clerk typist or clerk stenographer).

4. Select representative sample of students (matched pairs) from each group to be studied. Selective criteria to include:

   a. Sex

   b. IQ

   c. Achievement test and other standardized tests

5. Develop instruments to determine pertinent data concerning:

   a. The training program

   b. The students

6. Field test instruments and refinement

7. Train interviewers

8. Collect data

9. Code, tabulate and analyze data

APPENDIX E

A STUDY OF OFFICE WORK EXPERIENCE FOR TEACHERS OF OFFICE OCCUPATIONS

(Business Education Work Group)

PROBLEM

To ascertain the differences in the classroom performance of business teachers who have had office work experience and those who have not had this kind of experience.

OBJECTIVES

1. To provide a basis for determining whether office work experience should be a requirement for certification of office occupations teachers.

2. To identify the kinds of office work experience most appropriate for teachers of office occupations.

3. To provide a basis for improvement of the business teacher education curriculum.

4. To provide a basis for improvement of classroom instruction in office occupations.

5. To determine ways of providing opportunities for cooperation between business and business education.

6. To provide basis for assignment of business teachers to related office work experiences.

ASSUMPTIONS AND HYPOTHESES

1. Office work experience is desirable for teachers of office occupations.

2. Planned work experience is more effective than unplanned work experience.

3. Teachers who have had office work experience are more effective in classroom instruction than those who have not had this experience.

4. Classroom effectiveness of teachers of office occupations can be measured and evaluated.

PROCEDURES

Basically the study will utilize the experimental method. Classroom performance of a group of teachers who have had office work experience and a similar group who have not had office work experience will be compared. Specific steps in the procedure will include:

1. Review of related literature.

2. Plan and execute a pilot study to assure the appropriateness of procedures to be used in the major study.

3. Establish criteria for selection of teachers to be used in the study.

   a. Selection of approximately 100 teachers, half of whom comprise the experimental group and half the control group. For the major study perhaps 500 teachers should be included in each group.

   b. None of the participants shall have had previous office work experience.

   c. Inclusion of a balanced selection of teachers with respect to educational background (degrees, subject matter courses, professional education courses); certification to teach office occupations subjects; length of teaching experience (0 year, 1-3 years, 4-7 years, 8-10 years, etc.); geographic distribution; sex; size of school; size of department; willingness to participate in the study; full-time teaching in business subjects.

4. Pilot group of 100 teachers identified prior to summer of 1967. Fifty would be placed in eight weeks of work experience during summer of 1967; remaining 50 refrain from any office work experience. During 1967-68 evaluate classroom teaching performance of both groups. Proposed time schedule for major investigation: Evaluate classroom performance of all 1,000 teachers during 1968-69; eight weeks of office work experience for experimental group of 500 during summer of 1969; evaluation of both groups during 1969-70.

5. Classroom performance of teachers evaluated by

   a. High school principal
   b. Department chairman

c. Research team
d. Students
e. Others

6. Techniques for evaluation

   a. Observation of classroom activities
   b. Interview with teachers
   c. Interview with students
   d. Anecdotal record by teachers and others

7. Collecting, tabulating, describing, analyzing, and interpreting data.

8. Conclusions and recommendations.

APPENDIX F

AN ANALYSIS OF INSTRUCTION ABOUT LABOR RELATIONS IN PREPARATORY PROGRAMS OF BUSINESS AND OFFICE EDUCATION

(Labor Work Group)

The intent of this project is to prepare an analysis of all instruction about labor relations provided in the general areas of business and office education so that the status of instruction about labor relations will be known. In short, the intent is to find out what is currently being taught.

Significance of the Study

Only in recent years has it been clearly evident that a knowledge of labor relations is important in a wide variety of occupational areas. That this knowledge should extend to the area of business and office education is not an assumption; it is an imperative task. The functions of labor unions, the relationship of labor and management, and the interrelationships of labor, management, and education to the community, the national economy, and the national social well being are so intimately connected with contemporary life that all members of the labor force must possess a basic understanding of labor relations. The greater complexity of business and office occupations strain the accepted concept of close simple employer-employee relations, and there is a definite need for a more sophisticated labor relations process to cope with increasingly complicated problems.

The labor force is increasing in size and complexity. With unexpected speed, mechanical and electronic devices have multiplied job opportunities. Automated processes have invaded the area of business and office occupations more rapidly than they have influenced other areas of work. The number of persons who will enter the labor force in the future through the general areas of business and office occupations will increase significantly in comparison with the general growth of the labor force. Persons employed in the area of business and office occupations will become increasingly involved with labor relations concepts, and a basic knowledge of these concepts will enhance employability. For example, a secretary may frequently take dictation, type letters, arrange data, and gather basic information, which refer in one way or another to labor relations. That she can perform her work more effectively with a basic knowledge of labor relations seems to be evident. Graduates of business and office occupations courses should become increasingly knowledgeable about labor relations.

Objectives

1. To obtain data about specific items of labor relations as taught in preparatory programs for full-time students.

2. To show range, extent, scope of such instruction as a function of grade level, size of school, geography, and other factors.

3. To provide a summary of the data in total and to show trends and emphasis of instruction in labor relations.

4. To make recommendations for utilization of the data gathered and to suggest further research.

Advisory Committee

This project must have an advisory committee representative of teaching in the high school and post-high school program, representatives from business education, teacher education, representatives of the AFL-CIO (Education Department), representatives of the U. S. Department of Labor, the U. S. Department of Health, Education, and Welfare, and other groups as appropriate.

Nature and Scope of the Project

It is known that courses and programs in business and office occupations do in fact pay some attention to some elements of the area of labor relations. In some instances the nature and extent of this attention can easily be detected from the titles of courses. In other instances an emphasis upon concepts of labor relations is integrated into the instructional program in such a way that existence of such instruction can be determined only by examining the course of study.

This project proposes merely to identify what is being taught in business and office occupations courses. It will not be possible to determine from this study what should be taught or to make any qualitative evaluation of the instruction. However, once such data is obtained, it could be used as a basis for further research and study in order to provide guidelines to move from the contemporary situation to another level of competency of knowledge and understanding of labor relations. The fact is, however, that the present status of the instruction about concepts of labor relations is not known.

It is intended that the study should be nationwide and limited to preparatory instruction as commonly found in high schools, two year post-high school programs, and teacher education programs in both public and private schools.

Procedures

A survey instrument will be provided which will have two parts: (1) general information about the school, size, location, number of instructors, names of courses, and other data necessary in order to provide comparative relationships, and (2) a "Labor Relations Check List" which will be used to determine the nature and extent of concepts about labor relations that exist in a course or program in business and office occupations.

Labor Relations Check List

The labor relations check list suggested in this proposal has been gleaned from the topical headings of a publication by the Commonwealth of Pennsylvania, Department of Public Instruction, entitled The Labor Movement in the United States. This was a resource unit developed for public schools in 1963.

The check list should be further validated even though it is believed that the list represents in a reasonable way evidences of the scope of labor relations.

LABOR RELATIONS CHECK LIST

	Included in the program	Not Included in the program
1. History of the American labor movement.		
2. Factory and safety legislation.		
3. Child Labor Laws.		
4. Maximum hours.		
5. Minimum Wage Laws.		
6. Workmen's Compensation.		
7. Unemployment Insurance.		
8. Social Security.		
9. National Labor Relations Act (1935).		
10. Labor-Management Relations Act (1947).		
11. Labor-Management Relations Act (1947) Sec. 304.		
12. Labor-Management Reporting and Disclosure Act (1959).		
13. Bacon-Davis Act (1931).		
14. Copeland (Antikickback) Act (1934).		
15. Walsh-Healey Public Contracts Act (1936).		
16. How Collective Bargaining Works: the process.		
17. What Collective Bargaining is About: the issues.		
18. A. Wages and Hours. B. Control over job opportunities. C. Union security. D. Management's rights.		
19. What are some of the results of Collective Bargaining.		
20. Identification of some problems of labor and the economy.		
21. Composition of the labor force.		
22. Theories of economic growth and prosperity.		
23. Unemployment.		
24. What determines wages?		
25. Unions and Productivity.		
26. Labor and the Community.		
27. Basic principles of the AFL-CIO Community Services Program.		

APPENDIX G

FACTORS INFLUENCING SUCCESSFUL MOBILITY OF OFFICE EMPLOYEES AMONG AND WITHIN JOB CLUSTERS OF OFFICE OCCUPATIONS

(Labor Work Group)

Purpose and Significance of the Study

The purpose of the study is to determine the factors that seem to make it possible for some labor market participants to shift among and within office occupations clusters, thereby increasing their employability, while other participants suffer loss of work, stagnation and downgrading because of an apparent inability to make necessary job shifts.

The ability to adjust to the changing demands of the labor market - in office occupations as well as all other occupations - is a critical factor influencing continued employability. The adjustment could involve relocation from one geographical area to another as certain regions of the country diminish in economic importance while others grow. Similarly, shifts may have to be made from industries and/or occupations that are declining to ones that are expanding. In many cases, all three shifts may have to be made simultaneously; that is, for employment purposes, an individual may have to change his place of residence, work in a different industry at an entirely new or related occupation. In this study, only the latter type of shift - occupational - is considered.

In recent years the necessity of making such changes for employment purposes has accelerated. No doubt the rapid developments in science and technology, which have transformed the nature of industry and commerce, are the major force contributing to shifts in employment.

To the extent that school systems provide labor market participants in office occupations with the necessary skills and knowledge that better equip them to make necessary occupational adjustments, they fulfill a major role in society. Research, however, needs to be conducted (a) to determine what are the more appropriate skills and knowledge that contribute to successful labor market adaptation by office employees, and (b) to assess whether or not educational programs are adequately imparting these skills and knowledge to office and business education students. If not, appropriate recommendations for improvements in such programs may be made based upon the findings of this study.

Major Hypothesis

1. There are significant factors that differentiate mobile from immobile labor market participants in office occupations.

It is assumed here that these factors may be identified. For example, they may include:

a. Numerical, mathematical skills
b. Communication skills
c. Manipulative skills, finger dexterity
d. Attitudes (adaptability, interest and willingness to cooperate, humor, etc.)
e. Traits (social, mental, character, physical, etc.)

It is also assumed that the above (and other characteristics such as experience, intelligence) influence the ability of office employees to shift within and among job clusters of office occupations. These clusters may include such groups as:

a. Secretary
b. Stenography
c. Bookkeeping
d. Clerk-receptionists
e. Office machines
f. Professional technical

In the study the DOT could be used to identify appropriate job clusters.

Finally, it is assumed that those participants who possess factors that do not become obsolete and that are common to many job clusters are the individuals who will make satisfactory adaptations as evidenced by progression within and among job clusters and continued employability.

Methodology

Factors of time and expense obviously will limit the nature and scope of the following steps. Also, it is assumed that the appropriate literature would be explored, terms clearly defined, and pilot(s) conducted in order to assess the value of the interview instruments, etc.

1. One or more paired samples of office employees could be selected. Each pair should consist of sets of mobile and immobile office employees.

2. If several pairs are selected, they should be drawn from various metropolitan and urban regions throughout the country in order to include a representative cross section of the nation's commerce and industry.

3. The U. S. Employment Service could serve as a possible source of unemployed employees (the immobile), while employers would have to be relied upon to provide lists of employed persons (the mobile).

4. The pairs would include only female respondents and should be standardized with respect to age and education. Possibly a 20-25 age bracket might be utilized to consider those with at least a high school diploma or equivalent education.

5. The respondents would be interviewed. Complete five-year work histories could be obtained which would examine: all jobs held, industry, locations, compensation, length of service, likes and dislikes with respect to each job, reasons for termination, etc.

   Extensive evaluation of education received should be conducted. Include: type of course studied, extracurricular activities, academic achievement, etc. Possibly, accepted tests employed in high school to measure typing ability, mathematical, clerical skills, etc., could be administered to the respondents. The scores of mobile and immobile participants could then be compared.

   Other pertinent data will need to be collected. Demographic information such as marital status, number of dependents, and race should be included. Cultural background factors, e.g., occupation and education of parents and siblings might also be ascertained.

6. The interviews could be conducted by interviewers trained by the research director, or possibly a national service specializing in survey research could be employed to collect the data.

7. Consideration should be given to whether or not current and past employers should be interviewed to obtain their opinions regarding respondents' job performance.

8. Appropriate statistical techniques (and computer services) would be used in the analysis of the data.

APPENDIX H

IDENTIFICATION AND DEFINITION OF TERMINOLOGY IN THE FIELD OF OFFICE AND BUSINESS EDUCATION

(Labor Work Group)

Purpose and Significance of the Study

The main objective of the study is to develop a comprehensive dictionary or glossary which would include the most common terms and their meanings that exist in the area of office and business education.

Such a dictionary or glossary is necessary to improve and facilitate the flow of communications among the numerous groups and persons in this area. Facility of communications, in turn, should contribute to the improvement of programs and curricula at all educational levels. Equally important, it should enhance the flow of ideas and research findings among educators, administrators, etc., and thereby improve the quality of the profession.

Methodology

Following is one approach that may be employed in the development of the glossary:

1. The research group responsible for the project could search the following sources in order to draw up a list of common terms:

   a. Professional journals
   b. Dictionary (Prentice-Hall)
   c. Major texts in business and office education

2. A select panel comprised of leaders in office and business education should be established. Its responsibility would be:

   a. To agree upon what are the significant terms that might be included in a glossary.

b. To advise the research group with respect to tentative possible definitions for the terms. These definitions, in turn, would be checked through a national survey as described below.

c. To mediate the results of the national survey.

3. The panel members (possibly 20-25) should be drawn from faculty, school administration, professional associations, business and labor, and public agencies at the Federal, State and local levels.

4. After the terms have been selected and there is agreement upon alternative definitions, a survey instrument could be prepared to be distributed among a representative sample of appropriate personnel located throughout the country in the groups listed in #3 above. A multiple-choice question approach could be adopted in the instrument, i.e., each term would be followed by several alternative definitions and the respondent would be required to select the one definition which most closely agrees with his interpretation or understanding of what the term means.

5. The research group would score the results. Where there is much common agreement among the respondents with respect to certain terms, the alternative so selected in each case would be the accepted definition. In situations where there is disagreement, the panel would have to mediate and agree upon appropriate definitions guided by the research results.

6. The terms and their definitions would be published in a central source.

APPENDIX I

TO DETERMINE THE EXTENT AND NATURE OF CHANGE IN OFFICE OCCUPATIONS AND RESULTANT LABOR MARKET DEMAND

(Labor Work Group)

With rapid technological developments, complemented by enormous researches in science, the character of American industry and commerce has experienced rapid transition in recent years. No doubt this trend will continue in the future - possibly at an even more accelerated rate.

This change in the industrial composition of society - altering some industries, creating others, and leading to the death of some - has had an impact upon the structure of office occupations.

Research needs to be conducted to determine the nature and extent of these structural changes in office occupations. To what extent, if any, are certain of these occupations becoming obsolete? To what extent are certain of these occupations being modified and altered to fit the needs of industry? Equally important, to what extent are "new occupations" being created to supply the needed services?

The results of the research may be utilized to determine:

1. The extent to which present office education teachers will require retraining or additional training.

2. Needed alterations in guidance programs designed to facilitate adaptation of students to the changes in the labor market.

3. Necessary changes in curriculum development at all levels of education. These curriculum changes should fit the evolving characteristics of occupations.

There are at least two major phases in this research area:

1. To develop a model or instrument or technique to measure the extent and nature of change in occupations.

2. To apply the designed model to the labor market in order to assess the changes and estimate aggregate demand for workers in office occupations, industries and geographical areas.

APPENDIX J

LABOR RELATIONS SEMINARS FOR INSTRUCTORS OF BUSINESS AND OFFICE EDUCATION

(Labor Work Group)

A labor relations seminar should be held in each of the USOE regions for business and office education instructors, teacher educators, supervisors, and administrators.

The seminar format should be designed by a national group (a university) with the assistance of a special advisory committee representing labor, management, and education.

The seminar should be planned for a period of approximately one week in each of the regions, and should involve maximum participation of the seminar members. In general the seminars should be designed around the practice of a major presentation followed immediately by a discussion group (small groups to be preferred). The discussion groups should determine the extent to which the principles of labor relations presented could be integrated into curricular offerings in business and office education courses or programs.

APPENDIX K

AN ANNOTATED BIBLIOGRAPHY OF INFORMATION AVAILABLE PERTAINING TO SELECTED AREAS OF BUSINESS AND OFFICE EDUCATION

(Labor Work Group)

It is recommended that an annotated bibliography be prepared listing all information available in the field of business and office education. The bibliography should be maintained on a continuous basis.

This could be a project that might be undertaken at a Center such as the one at the Ohio State University.

APPENDIX L

AN ANALYSIS OF LABOR MARKET ADAPTATION AND RELATIONSHIP TO TRAINING PROGRAMS IN OFFICE EDUCATION

(Labor Work Group)

Since there is a diversification of training programs such as: simulated or laboratory, directed work experience and cooperative types of training programs, there is a need to study and evaluate these training programs to determine if there is a preferred way of training.

This should probably be in the nature of an experimental study using a control group in a traditional curriculum with three experimental groups - one educated and trained through the simulated or laboratory curriculum, one through a directed work experience curriculum, and one following a cooperative curriculum. In this way, comparisons might be drawn as to the most efficient approach for preparing office workers with successful job performance serving as the standard of measurement.

APPENDIX M

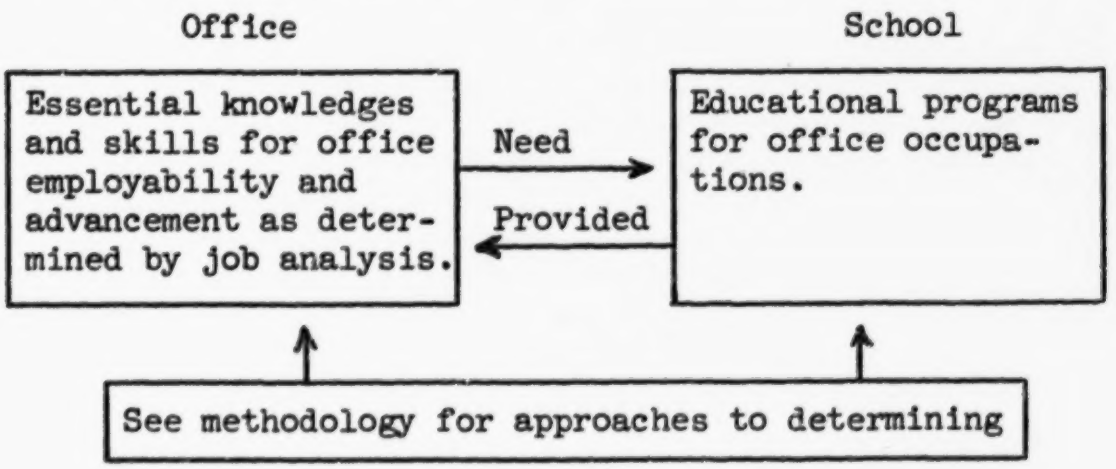
DEPTH ANALYSIS OF OFFICE JOBS - DEVELOPMENT OF A MODEL FOR CONTINUOUS ANALYSIS OF OFFICE JOBS

(Management Work Group)

Statement of the Problem

A model for making in-depth studies of office jobs and for correlating job needs with office educational programs is needed. This model should provide coordination and direction to research and to education of potential workers for initial office employment. An urgent need exists for a comprehensive, on-going system to assist office educators and researchers (1) to determine the knowledges and skills essential for employability and subsequent advancement and (2) to provide these knowledges and skills in an educational program. Rapid changes in technology demand that occupational job analysis be continuously done and that educational programs be continuously evaluated. Research based on analytical and systematic observation rather than questionnaire approaches must be used to provide a scientific professional base for office research and education.

By "model" we visualize two subjects: one of office work and one of educational program. Essential knowledges and skills (abstracted, if possible, to critical knowledges and skills) flow into the office model from various sources. Gaps and nonessentials in the educational program are then determined:


Office
School
Essential knowledges and skills for office employability and advancement as determined by job analysis.
Need
Provided
Educational programs for office occupations.
See methodology for approaches to determining

Assumptions:

A. Course content based on job performance will prepare students for initial employment.

B. Office educators can improve the preparation of students when proper information is up-to-date and available.

C. Periodic collection of significant data will be carried out to provide information for needed change in the education of office employees by surveying selected office occupations and educational programs.

Questions:

A. How can the needed knowledges and skills best be incorporated into the total educational program, filling the gaps and eliminating the nonessentials?

B. What are the essential knowledges needed for initial office employment?

    1. What are the job hierarchy and patterns of relationships among office jobs?

    2. Are there certain knowledges common to all initial office jobs? (industries, employers, sections of the country, etc.)

C. What are the essential skills needed for initial office employment?

D. To what extent are the essential knowledges and skills included in educational programs?

Methodology

A. What are the essential knowledges needed for initial office employment?

    1. Available Knowledge

        a. Job descriptions
        b. Firms
        c. National organizations
            (1) Governmental agencies
            (2) Academy of Management
            (3) Administrative Management Society

(4) National Secretaries Association
(5) American Management Association
(6) American Personnel Association
(7) Data Processing Management Association
(8) Systems and Procedures Association
(9) Delta Pi Epsilon
(10) Dictionary of Occupational Titles
(11) Occupational Outlook Handbook

2. Instruments for Measuring Knowledge

a. Tests
(1) General Aptitude Business Test
(2) Achievement
b. School records
c. Job specifications
d. Personnel records
e. Interviews
f. Observations
g. Knowledge scales
h. Array of employees
(1) Best
(2) Average
(3) Worst
(a) Merit rating
(b) Interviewing
(c) Sampling
i. Two tests
(1) Initial
(2) After one year

B. What are the essential skills needed for initial office employment?

1. Skill Data Required

a. Which skills
b. How well skills are performed
c. Distribution of skills
d. Salary and wage payment plans
e. Job classification systems
f. Merit ratings
g. Quality control programs
h. Job performance standards
i. Training programs
(1) Vestibule
(2) Initial on the job

2. Instruments for Measuring Skills

   a. Tests
      (1) Performance
      (2) Reading
      (3) Verbal
      (4) Writing
      (5) Spelling

   b. Interviews
      (1) Employee
      (2) Supervisor
      (3) Personnel director
      (4) Union representative

   c. Observations
      (1) Work sampling
      (2) Motion study
          (scale of skills)

3. Sample Size (Both Skills and Knowledges)

   a. First year on the job
   b. Stratified sample
      (1) Company size
      (2) Locality
      (3) Government
      (4) Private industry
          (a) Service
          (b) Manufacturing
          (c) Distributive

4. Sequence of Research

   a. Gather all available information
   b. Pilot study (unstructured)
      (1) Knowledge needed
      (2) Weighted check list of knowledge

C. To what extent are the essential knowledges and skills included in educational programs?

   1. Content (Source of Information)

      a. Primary sources
         (1) Teachers
         (2) Students
         (3) Supervisors
         (4) Guidance counselors

b. Secondary Sources
   (1) Textbooks
   (2) Curriculum guides
      (a) Courses of study
      (b) Equipment
   (3) State Departments of Education

2. Schools (Population)

   a. Senior high school
   b. Post high school
   c. Private business school
   d. Area technical school
   e. Four-year college
   f. Junior college (2 year)
   g. Adult education program
   h. Manpower Development and Training Act programs

3. Instruments to Collect Primary Data

   a. Rating scales
   b. Tests (school)
   c. Observations
   d. Interviews with teachers

D. How can the needed knowledges and skills best be incorporated into the total educational program, filling the gaps and eliminating the nonessentials?

1. Channels

   a. State Departments of Education
   b. Local school administrators and supervisors
   c. Teachers
   d. Suppliers of educational materials

2. Cooperating Participants

   a. State Superintendents
   b. County Superintendents
   c. Supervising Principals
   d. Teacher representatives
   e. Teachers
   f. Teacher organizations
   g. Counselors
   h. Advisory groups
   i. In-service training in the school systems
   j. Teacher training institutions
   k. College entrance boards
   l. Private firms
   m. Publishers

3. Techniques

   a. PERT (Program Evaluation Review Techniques) Information gathered should be scheduled in proper sequence using, where possible, PERT concepts.

   b. Resource allocation techniques

4. Sequence of Introducing Needed Changes

   a. State Superintendent
   b. Curriculum redesign
   c. In-service training of school personnel
   d. Distribution at local school level
   e. Adoption by classroom teacher

5. Follow-up Evaluation

APPENDIX N

Conference Leaders in Business Education

Dr. Fred Cook
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